GROWERTALKS

Features

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Propagating for a Successful Grow-Out

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Plug production is one of the most important steps for successful production of any crop. We're constantly looking for methods to increase production, whether it's better genetics, cultural practices or environmental control. We aim to maximize quantity and quality, which may involve tediously managing space, grouping similar crops together and manipulating environments to fit the needs of each crop—at times making it more complex and challenging. The ultimate goal is to produce a well-branched and toned liner that will develop into a high performing, well-structured plant.

Figure 1. Little Lucky Orange. On the left is the control (no PGRs), on the right is Florel 250/Configure 50 ppm.

So what are the impacts of producing these high-quality liners in propagation? At times, we may not realize the impact our practices will have on our final product. The way we produce our liners will impact final production and the quality of our crop.

Propagating liners

In a perfect world, growers prefer genetics that require less work, fewer inputs, and are easy to grow and manage. Occasionally, having to work with cultivars that are more challenging to root and grow, or new cultivars that we've never grown, will be part of the task.

Liner propagation being an important step in plant production, it will require knowing how to manage new or difficult-to-grow crops in propagation at the liner stage and post-transplant. Understand-ing new cultivars and their growth is very important. Often times, it involves rooting out and evaluating to help identify outliers that may be a little different or more challenging to produce.

Keep in mind propagation practices can influence development throughout production. When we talk about liner production, it's very important to consider and evaluate the final product. We may not know the true impact of our practices until we see the end result.

Evaluating development after liner production should be a good practice; this will allow us to better understand the impact of our practices on final grow-out, either positive or negative. Growers can better understand a cultivar and the possible effects of any treatments being done prior to transplant and can make better decisions and adjustments to current practices.

We often run into issues with rooting, disease, growth and structure. A grower may apply rooting hormones to promote better rooting and uniformity, plant growth regulators to control vigor and structure development, and fungicides to prevent disease development. As growers, we're always looking to improve production and solve issues, especially in propagation.

Often, running small trials determines cultural practices that will influence or affect performance. For example, we may not treat all of our petunias the same; there may be a series that's more vigorous, more compact or has a special habit. Therefore, this will prevent us from treating a whole genus the same.

Figure 2. Little Lucky Orange. From left to right: Control (no PGRs), Florel 250 ppm and Florel 250/Configure 50 ppm.

Producing a high-quality liner isn't only about good rooting or healthy growth, but its performance and development out of the liner stage. Before transplanting into their final container, we need to ensure liners are ready for their final stage of growth. This may involve acclimating to their future environment, and oftentimes, doing a manual pinch. Manually pinching liners is a common practice that will promote more vegetative and lateral growth. This can also be achieved through the use of chemicals.

Often, ethrel is applied to liners to inhibit bud formation and promote lateral growth development. Like mentioned before, following up on final grow-out can lead to some interesting discoveries and questions. At times what worked really well for liner production may not work too well for final production. We've all had a new variety that resulted in being a little sensitive or the rate we sprayed was a little high, so it took the plant a little longer to grow out of it. Sometimes what worked well can work even better with small adjustments!

Lantana trials

We're always looking for new ways to improve growth and quality that involves running several small trials—at times, completely messing them up by exploring new rates. It's part of trying to find the perfect recipe. Usually during the slow season, a crop is picked and we start playing with different rates. An example of this is Lantana Little Lucky, Lucky and Landmark series. We mostly focused on liner quality, and after some trial and error, we pinpointed some interesting rates that worked really well, and produced well-toned and branched liners (Figure 1).

As we grew out these toned liners, growth between each treatment was compared. Growing these treatments out would require additional PGRs to control growth as plants began to develop. It was decided we would repeat each treatment application done to the liner and determine what influence they would have when applied again post-transplant, approximately one week after transplant.

The results were interesting (Figure 2): Little Lucky Lantana responded well to Florel 250/Configure 50 ppm spray applications. The Lucky Lantana series responded well to Florel 300/Configure 75 ppm spray applications. These applications were applied in the liner stage, three weeks after stick and one week after transplant.

It's interesting when searching to improve or solve issues in one area we can learn and improve performance in other areas. Running simple trials to produce better liners in the Little Lucky and Lucky series proved to be very beneficial—not only were we able to find a practice that would produce better, more compact and branched liners, but additional benefits were discovered.

These better-branched liners would later form better-structured plants, with increased branching and buds to produce a much more appealing product. In some cases, after several tweaks to our spray recipes, we saw signs

of earlier flowering when applying tank mixes of Florel 250/Configure 75 ppm, leading to several repeated trials that produced similar results.

So as a grower, next time you're focusing on producing high-quality and well-performing liners, ask yourself this question, "Do I know the effects in the long run and can I improve the current practice and get an added benefit?"

Whether it's increased quality, labor reduction or reduction in crop timing, next time you're growing your Lantana Little Lucky and Lucky series, you may want to look at trying some new propagation techniques to your liners. Feel free to look at our full results to this trial and other growing information by visiting ballfloraplant.com. **GT**

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